SERVICE MANUAL

FISHER

MT-223

Servo Drive
Semi-Automatic Turntable
(EUROPE)

134 091 40
(Lid Supplied)
134 091 41
(Without Lid)

WM-17151

SPECIFICATIONS

TURNTABLE		MT-223
Motor		DC Servo
Drive System		Belt
Wow and Flutter (WRMS)		0.04 %
Rumble (DIN 45539B)		−70 dB
Speed Variation		±1.5 %
Platter Diameter		300 mm
Platter Weight		0.5 kg
Record Speed Selector		33-1/3 rpm / 45 rpm
Automatic Functions		
	Stop	Yes
	Reject	Yes
Automatic Tonearm Return at End of Record		Yes
Manual Functions		
	Start	Yes
	Stop	Yes
Tonearm Data		
	Resonance	<10 Hz
	Effective Length	222 mm
	Shape	Straight
Max. Tracking Error		±1.8°
Cueing		Viscous Damped
GENERAL		
Power Requirements		AC 220 V 50 Hz
Power Consumption		4 Watts
Dimensions (W x H x D)		400 x 89 x 325 mm
Weight (approx.)		2.7kg

Because its products are subject to continuous improvement, Fisher Corporation reserves the right to modify product designs and specifications without notice and without incurring any obligation.

REPLACING THE CARTRIDGE

When replacing the cartridge, first loosen the cartridge set screw, then pull the cartridge out gently as shown in Fig. 1. To install the replacement cartridge, reverse the procedure.

NOTE:
When replacing the cartridge, the top surface of the cartridge must be lined up with the top surface of the tonearm (Fig. 2).

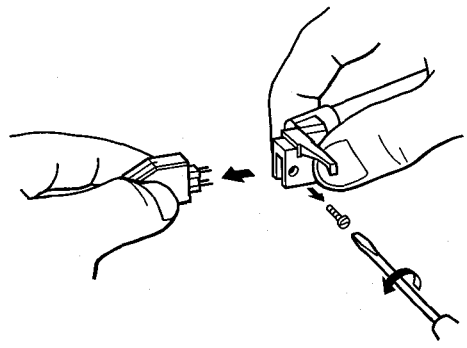


Fig.1

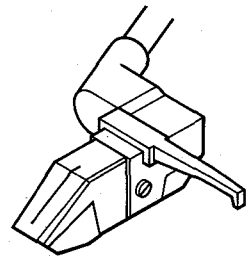
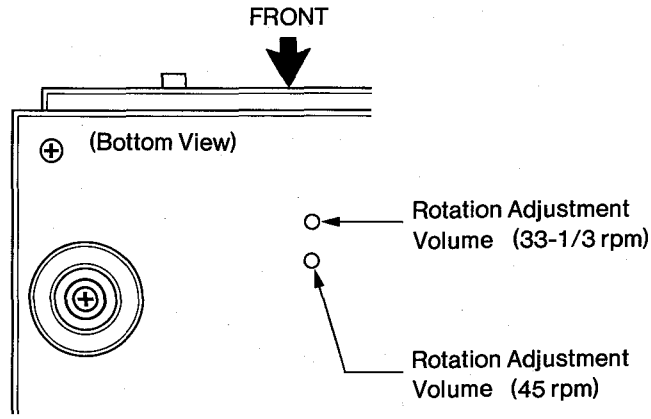


Fig.2

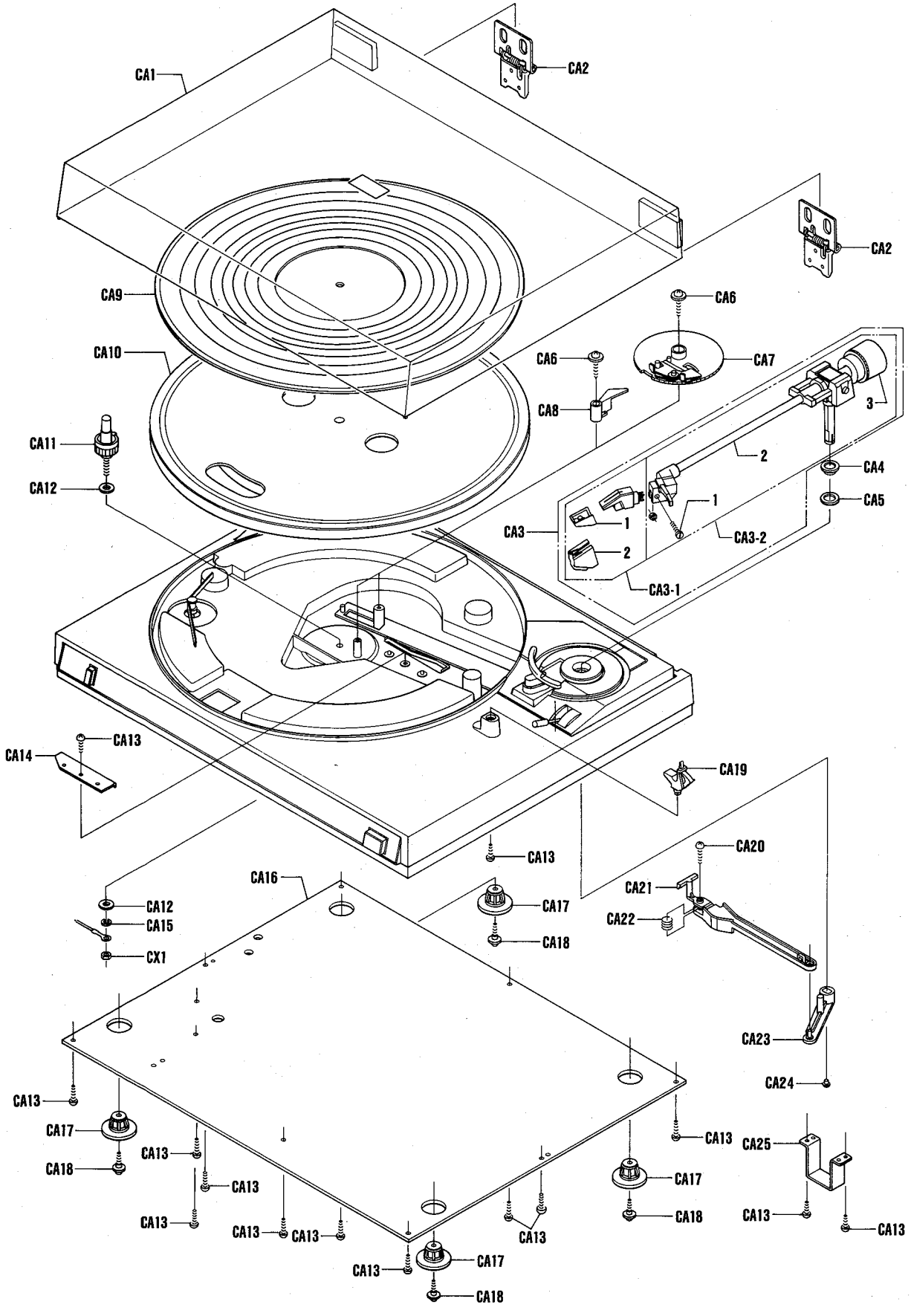
ADJUSTMENT

ROTATION ADJUSTMENT

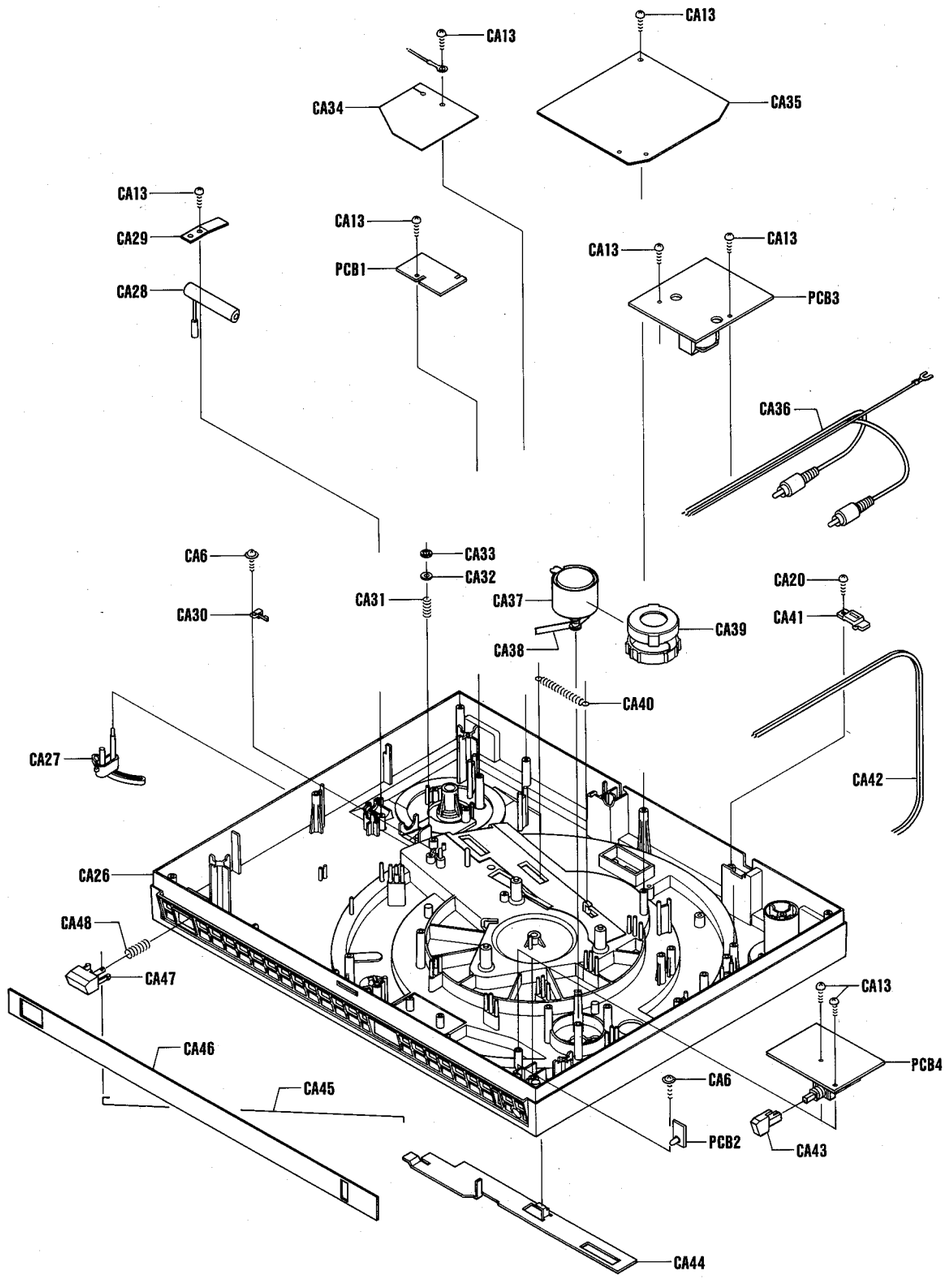
1. Set the speed select switch (S201) to the "45 rpm" position and set the unit in the playback mode.
2. Adjust the VR202 using the strobo scope sheet so that the rotation should be fitted well.
3. Set the speed select switch (S201) to the "33-1/3 rpm" position and adjust the VR201 in the same method as explained on 45 rpm.



CABINET & CHASSIS EXPLODED VIEW



CABINET & CHASSIS EXPLODED VIEW (Continued)



CABINET & CHASSIS PARTS LIST

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

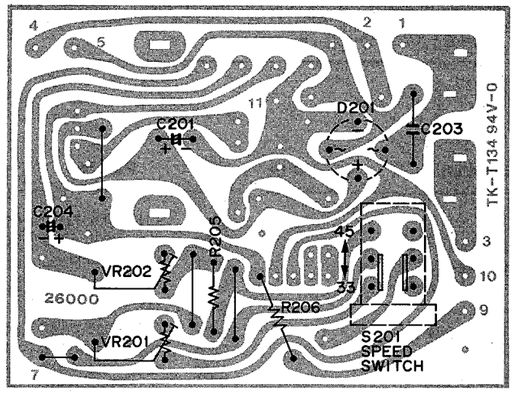
Ref. No.	Part No.	Description	Q'ty
	PACKAGE		
	141-6-1189-14104	Box Corrugate-exp (Lid Supplied)	1
	141-6-1189-14105	Box Corrugate-exp (Without Lid)	1
	141-6-2519-16390	Bag Polyethylene-exp (Lid Supplied)	1
	141-6-2519-16490	Bag Polyethylene-exp	1
	141-6-2519-16590	Bag Polyethylene-exp (Weight)	2
	141-6-2519-22090	Poly Cover	1
	141-6-2519-22990	Bag Polyethylene-ind	1
	141-6-3119-31300	Pad Rear	1
	141-6-3119-31400	Pad Front	1
	141-6-3119-22900	Pad (Without Lid)	1
	141-6-3119-31500	Pad (Lid Supplied)	1
	141-6-3119-31700	Pad Top	1
	141-6-3219-00800	Patching Sheet	1
	141-6-4559-03300	Serial No. Sheet	2
	ACCESSORIES		
	131-6-2719-10401	Bag Fan	1
	134-2-2901-11601	Adapter EP	1
	142-6-4119-32939	Explanatory Booklet	1
	CABINET		
	141-2-1449-56270	Name Plate	1
	141-6-4559-03300	Serial No. Sheet	1
	141-6-4729-37603	Stylus Label	1
	131-2-3608-14100	Cramp Wire	4
CA1	141-0-1249-40800	Lid Assy (Lid Supplied)	1
CA2	141-0-2519-00900	Hinge Assy (Lid Supplied)	2
CA3	141-0-6419-02801	Pick-up Assy	1
CA3-1	4-1579-70070	Cartridge (MG-66)	1
1	4-1579-70080	Stylus (ST-66D)	1
2	141-2-6459-00400	Retainer Needle	1
CA3-2	141-0-6419-03100	Tone Arm Assy	1
1	101-3-2502-01013	Screw, Cylinder Hd., -M2.0x10	1
2	141-0-6429-00500	Pick-up Arm Assy	1
3	141-0-6439-00400	Pick-up Weight Assy	1
CA4	141-2-4569-09800	Spacer	1
CA5	141-2-4539-41300	Washer	1
CA6	131-2-4201-28300	Screw	4
CA7	134-0-6030-12000	Gear Cycling Assy	1
CA8	141-2-7439-50200	Arm	1
CA9	134-2-6102-15702	Mat Turntable	1
CA10	141-2-5229-01001	Turntable	1
CA11	141-0-7519-04901	Shaft Turntable Complet	1
CA12	141-2-4569-09900	Washer	2
CA13	131-2-4201-19502	Screw	12
CA14	141-2-3519-77800	Plate	1
CA15	131-2-4203-19703	Washer	1
CA16	141-2-1259-09400	Plate Bottom	1
CA17	141-2-4459-37602	Cushion	4
CA18	134-2-4201-13401	Screw	4

Ref. No.	Part No.	Description	Q'ty
CA19	134-0-6031-12300	Arm Rest Assy	1
CA20	131-2-4201-19503	Screw	12
CA21	141-2-7439-50400	Arm	1
CA22	141-2-8559-15000	Spring	1
CA23	141-2-7439-50300	Plate Pick-up Fix	1
CA24	134-2-4117-11600	Support Shaft	1
CA25	141-2-3519-79600	Angle Mount	1
CA26	141-2-1129-39501	Cabinet	1
CA27	134-2-3310-12600	Support Arm	1
CA28	141-2-1629-10900	Knob	1
CA29	141-2-8539-57300	Spring Plate	1
CA30	⚠ 4-2319-78740	Leaf Switch (Power) [S1]	1
CA31	134-2-5101-32300	Spring	1
CA32	131-2-4203-83200	Washer, M3.2x8x0.5	1
CA33	131-2-4220-10502	Ring Snap	1
CA34	141-2-3229-56200	Cover Shield	1
CA35	141-2-3229-56900	Cover	1
CA36	131-0-4004-15003	Wire Shield Assy	1
CA37	134-0-5011-04100	Motor Assy [M1]	1
CA38	134-2-6302-11601	Belt	1
CA39	141-2-4429-00600	Cushion Motor	1
CA40	141-2-8549-34700	Spring	1
CA41	131-2-3608-16800	Cramp Wire	1
CA42	⚠ 4-2432-00071	Power Cord	1
CA43	141-2-1659-58200	Knob	1
CA44	141-0-3519-25000	Plate Return Assy	1
CA45	141-2-7359-04300	Rod	1
CA46	141-2-1439-16508	Panel Control	1
CA47	141-2-1659-58301	Knob	1
CA48	141-2-8559-14400	Spring	1
CX1	106-3-1304-00011	Hex. Nut-3, M4.0	1
PCB1	4-1329-79160	Phono P.C.B. Assy	1
PCB2	141-0-1939-14110	LED P.C.B. Assy	1
PCB3	141-0-1939-14093	Power Supply P.C.B. Assy	1
PCB4	141-0-1939-14100	Power DC P.C.B. Assy	1

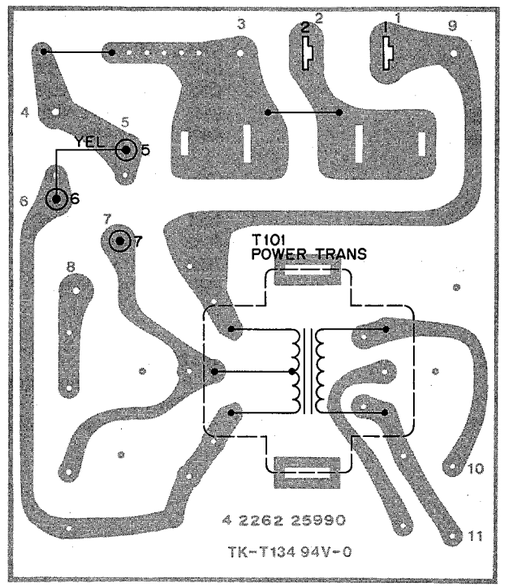
NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

POWER DC P.C.BOARD
(BOTTOM VIEW)



POWER SUPPLY P.C.BOARD
(BOTTOM VIEW)



P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description			Q'ty
	PHONO P.C.B. ASSY				
PCB1	4-1329-79160	Phono P.C.B. Assy			1
C1	CC1-0-3500-ZG00C	Ceramic	0.01μF	50V +80,-20%	1
	LED P.C.B. ASSY				
PCB2	141-0-1939-14110	LED P.C.B. Assy			1
D401	4-2029-74460	LED, SLR 54 VT 5 (Operation)			1
	POWER SUPPLY P.C.B. ASSY				
PCB3	141-0-1939-14093	Power Supply P.C.B. Assy			1
	4-2372-00830	EC Terminal 1P			2
	111-2-6220-11100	Wire Wrap Terminal			3
T101	⚠ 4-2512-05124	Power Trans			1
	POWER DC P.C.B. ASSY				
PCB4	141-0-1939-14100	Power DC P.C.B. Assy			1
	4-2359-79036	Connector 1P Assy			1
S201	4-2319-78730	Push Switch 1 Key (Speed)			1
VR201	4-2222-02120	Semi Fixed Volume (B-30kΩ)			1
VR202	4-2222-01400	Potentiometer (B-10kΩ)			1
D201	DGG-W02– - - - -	Diode, W 02			1
C201	CD1-0-8250-0006V	Electrolytic	1000μF	25V	1
C203	CC1-0-3501-YEY0C	Ceramic	0.01μF	500V +100,-0%	1
C204	CD2-2-6160-0001V	Electrolytic	22μF	16V	1
R205	401 014 0008	CARBON 13K JA 1/4W			1
R206	401 015 2704	CARBON 1.8K JA 1/4W			1

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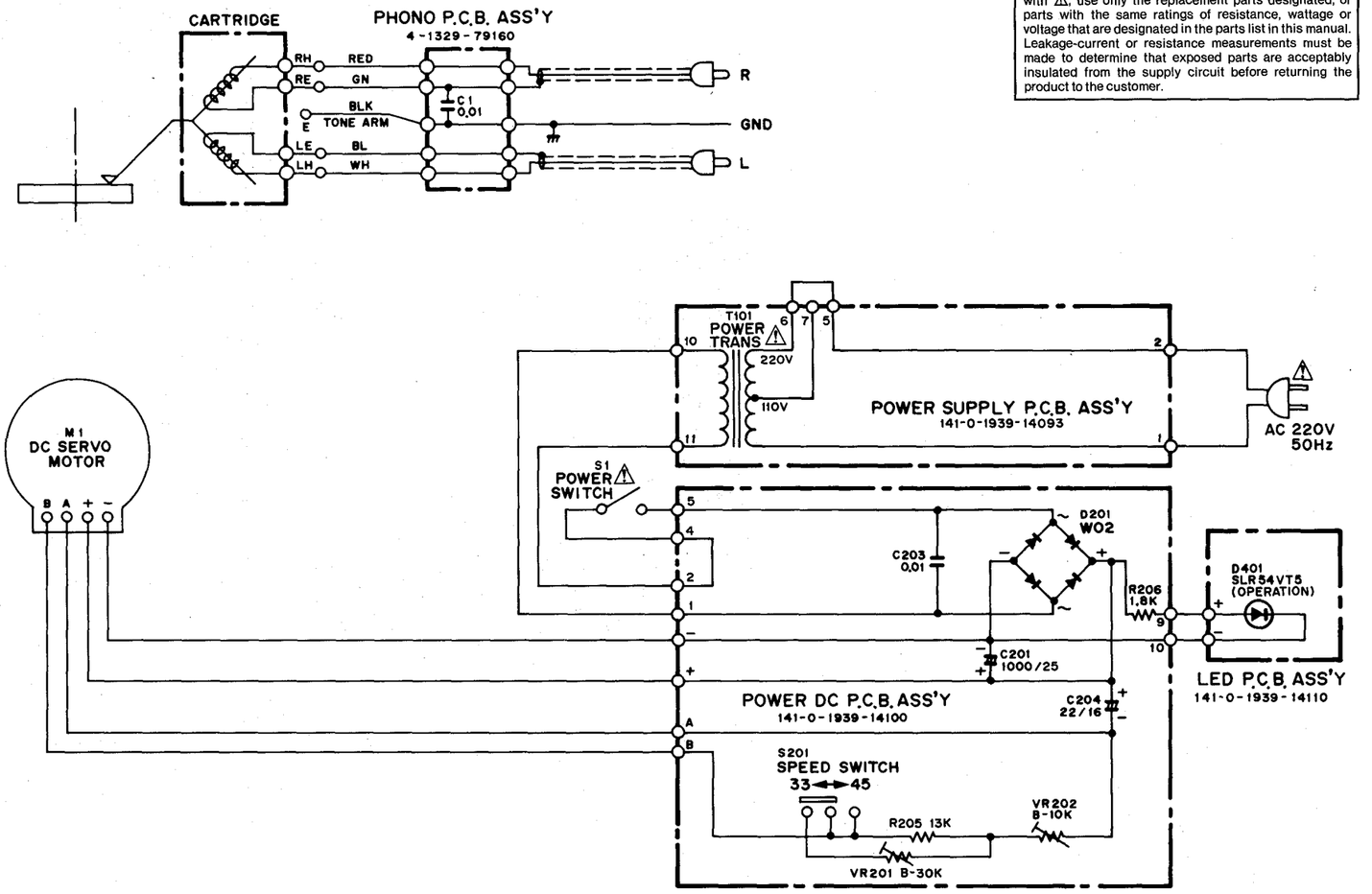
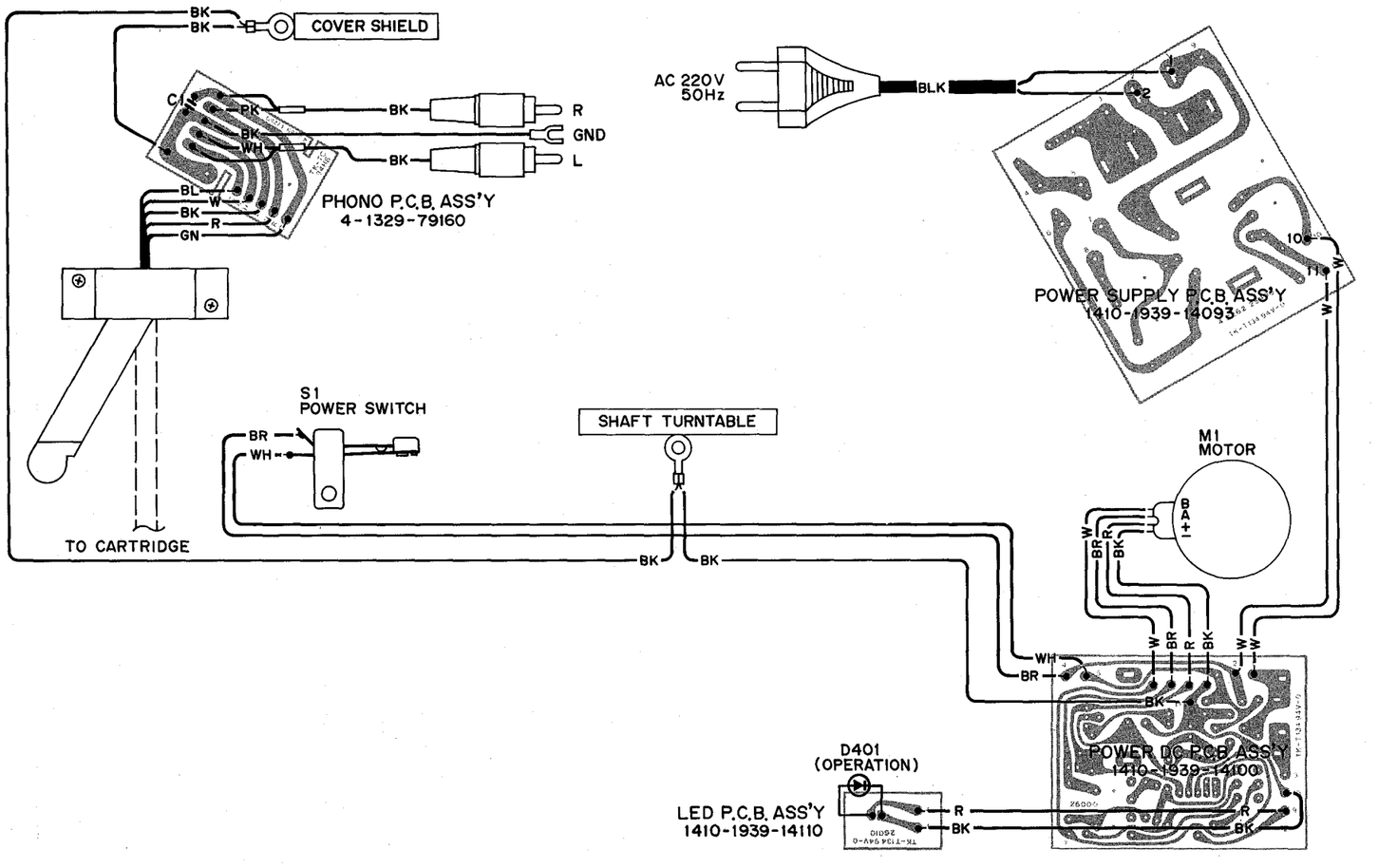
SCHEMATIC DIAGRAM



POINT TO POINT WIRING DIAGRAM



MEMO

FISHER

FISHER Hi-Fi Europa Vertriebs GmbH

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Funkstörmeßlabor	–127/128
Service-Zentrale	
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Hi-Fi/Audio	–168
Video	–172
Autoradio	–170
Ersatzteillager	–155/156
Techn. Schulung	–174

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Sie sparen so wertvolle Zeit. Vielen Dank.

March/'86/2,000 **Printed in Japan**